

1 **51533/MEG/E303**

WHAT IS CLAIMED IS:

1. An assembly for effecting the condition of a mitral
5 valve annulus of a heart comprising:

a guide wire configured to be advanced to the coronary
sinus of the heart; and

10 a mitral valve annulus device configured to be received
on the guide wire and advanced into the coronary sinus of the
heart on the guide wire and that reshapes the mitral valve
annulus when in the coronary sinus of the heart.

15 2. The assembly of claim 1 wherein the device is
configured to be slidingly received on the guide wire.

20 3. The assembly of claim 1 wherein the mitral valve
annulus device has opposed ends and includes a guide wire
engaging structure at at least one of the opposed ends.

25 4. The assembly of claim 3 wherein the guide wire
engaging structure includes a bore dimensioned to permit the
guide wire to pass therethrough.

30 5. The assembly of claim 4 wherein the device further
includes a guide wire confining channel extending between the
opposed ends.

35 6. The assembly of claim 4 wherein the bore of the
guide wire engaging structure is cylindrical in configuration.

7. The assembly of claim 6 wherein the device further
includes a guide wire confining channel extending between the

opposed ends and aligned with the bore.

5 8. The assembly of claim 1 wherein the guide wire is
formed of a material visible under X ray.

10 9. The assembly of claim 1 wherein at least a portion
of the device is visible under X ray.

14 10. The assembly of claim 1 wherein the device is
visible under X ray.

15 11. The assembly of claim 1 further including an
elongated introducer configured to be received on the guide
wire proximal to the device.

20 12. The assembly of claim 11 wherein the introducer is
configured to be slidably received on the guide wire.

25 13. The assembly of claim 11 wherein the assembly
further includes a releasable locking mechanism configured to
releasably lock the device to the introducer.

30 14. The assembly of claim 11 further including a guide
tube having an inner lumen dimensioned for receiving the guide
wire and the device and introducer when the device and
introducer are received on the guide wire.

35 15. A method of deploying a mitral valve annulus
constricting device within the coronary sinus of a heart, the
method including the steps of:

A. providing an elongated guide wire having a cross sectional dimension;

5 B. advancing the guide wire to the coronary sinus of the heart;

10 C. providing a guide tube having an inner lumen, the inner lumen having a cross sectional dimension greater than the cross sectional dimension of the guide wire;

15 D. advancing the guide tube to the coronary sinus of the heart on the guide wire with the guide wire within the inner lumen of the guide tube;

20 E. providing a mitral valve annulus device configured to be received on the guide wire and within the inner lumen of the guide tube, the device including a proximal end;

25 F. providing a flexible elongated introducer configured to be received on the guide wire and within the inner lumen of the guide tube, the introducer having a distal end;

30 G. placing the device onto the guide wire;

35 H. placing the introducer onto the guide wire;

I. engaging the introducer with the device;

J. pushing the device with the introducer in a distal direction along the guide wire and within the guide tube until the device is at least partially encircling the mitral valve within the coronary sinus of the heart; and

K. withdrawing the introducer and the guide tube from the heart.

35 16. The method of claim 15 wherein the engaging step includes the step I(1) of releasably locking the device to the introducer.

17. The method of claim 16 including the further step
J(1) of releasing the device from the introducer prior to
5 withdrawing the introducer.

18. A method of deploying a mitral valve annulus
10 reshaping device within the coronary sinus of a heart, the
method including the steps of:

advancing a guide wire to the coronary sinus of the
heart;

advancing the elongated mitral valve annulus reshaping
15 device on the guide wire and into the coronary sinus into a
position such that the device at least partially encircles the
mitral valve of the heart.

19. The method of claim 18 wherein the advancing step
20 further includes the steps of mounting an elongated flexible
introducer onto the guide wire, engaging the introducer with
the device, and pushing the device distally into the coronary
sinus with the introducer.

25 20. The method of claim 19 including the further step of
withdrawing the introducer after deploying the device.

30 21. The method of claim 20 wherein the engaging step
includes releasably locking the device to the introducer.

35 22. The method of claim 21 including the further step of
releasing the device from the introducer prior to withdrawing
the introducer.

23. The method of claim 19 including the further steps
of:

5 providing an elongated flexible guide tube having an
inner lumen, the inner lumen having a cross sectional
dimension greater than the cross sectional dimension of the
guide wire;

10 advancing the guide tube to the coronary sinus of the
heart over the guide wire with the guide wire within the inner
lumen of the guide tube; and

15 wherein the pushing step includes pushing the device
along the guide wire and within the guide tube.

24. The method of claim 23 wherein the engaging step
includes releasably locking the device to the introducer.

25 25. The method of claim 24 including the further steps
of releasing the device from the introducer and withdrawing
the introducer and the guide tube after deploying the device.